

ABSTRACT

An object of the invention is to provide a base station capable of selecting more an appropriate beam from among the transmission beams of a multi-beam. The constitution thereof is such that a beam power detecting section 4 finds each of received signal powers of M pieces of the multi-beam and beam output selection section 5 selects and receives a beam having the maximum power from among M pieces of beam-formers 31 to 3M from information on received power from the beam power detecting section 4.

10 Transmission weight generating portion 6 selects a beam corresponding to the signal of the spread code selected by a mobile station and an arbitrary beam other than that beam from received information, and notifies each of transmission weight coefficients thereof. A transmission beam-forming section 7 gives a weight to the transmission data corresponding to each of

15 transmission array antenna elements 91 to 9N. Spreaders 81 and 82 spread an input signal by each of different spread codes, and transmission array antenna elements 91 to 9N send out a beam-formed signal.